

AMENDMENTS TO THE CLAIMS

1-25 (Cancelled)

26. (New) A cross-linkable or cross-linked rubber composition comprising an elastomeric matrix, said composition exhibiting a reduced hysteresis in the cross-linked state and being usable in a tire tread,

wherein said elastomeric matrix comprises a block copolymer having n blocks, each of said blocks comprising an essentially unsaturated diene elastomer having a molar content of units originating from conjugated dienes of greater than 15%, and one or each of said blocks which forms the chain end of said copolymer consisting of a polyisoprene,

wherein $n = 2$ or 3 ,

wherein the number-average molecular weight M_{n1} of said or each polyisoprene end block is between about 2,500 and 20,000 g/mol,

wherein the number-average molecular weight M_{n2} of the block of said copolymer which is other than said or each polyisoprene end block is between about 80,000 and 350,000 g/mol.

27. (New) The rubber composition according to Claim 26, wherein the ratio of said molecular weights M_{n1} / M_{n2} is between about 5 and 20%.

28. (New) The rubber composition according to Claim 26, wherein $n = 2$.

29. (New) The rubber composition according to Claim 26, wherein $n = 3$.

30. (New) The rubber composition according to Claim 26, further comprising a reinforcing filler.

31. (New) The rubber composition according to Claim 30, wherein said reinforcing filler comprises an inorganic reinforcing filler.

32. (New) The rubber composition according to Claim 31, wherein said inorganic reinforcing filler is silica.

33. (New) The rubber composition according to Claim 31, wherein said block which is other than said or each polyisoprene end block is functionalized, coupled or starred for bonding with said inorganic reinforcing filler.

34. (New) The rubber composition according to Claim 33, wherein said block which is other than said or each polyisoprene end block comprises a silanol functional group.

35. (New) The rubber composition according to Claim 33, wherein said block which is other than said or each polyisoprene end block comprises a mono-, di- or trialkoxysilane functional group.

36. (New) The rubber composition according to Claim 30, wherein said reinforcing filler comprises carbon black.

37. (New) The rubber composition according to Claim 36, wherein said block which is other than said or each polyisoprene end block is functionalized, coupled or starred for bonding with said carbon black.

38. (New) The rubber composition according to Claim 37, wherein said block which is other than said or each polyisoprene end block comprises a functional group with a C-Sn bond.

39. (New) The rubber composition according to Claim 37, wherein this functional group is obtained by reaction with a mono-, di-, tri- or tetrahalotin agent.

40. (New) The rubber composition according to Claim 37, wherein said block which is other than said or each polyisoprene end block comprises an amine functional group.

41. (New) The rubber composition according to Claim 26, wherein said block which is other than said or each polyisoprene end block is a polybutadiene.

42. (New) The rubber composition according to Claim 26, wherein said block which is other than said or each polyisoprene end block is a copolymer of styrene and butadiene.

43. (New) The rubber composition according to Claim 26, wherein said block which is other than said or each polyisoprene end block is a copolymer of styrene and isoprene.

44. (New) The rubber composition according to Claim 26, wherein said or each polyisoprene end block has a content of 3,4- and 1,2-vinyl linkages which is substantially between about 1 and 20%.
45. (New) The rubber composition according to Claim 41, wherein the polybutadiene block comprises 1,2-linkage content which is between about 10% and 60%.
46. (New) The rubber composition according to Claim 42, said copolymer block comprises 1,2-linkages content between about 10% and 70% and styrene linkages content between about 5% and 50%, respectively.
47. (New) A tire tread usable for reducing the rolling resistance of a tire comprising said tire tread, wherein said tire tread comprises a cross-linked rubber composition according to Claim 26.
48. (New) A tire comprising a tread according to Claim 47.